APPARATUS AND METHODS FOR FORMING DECK EDGING FOR SWIMMING POOLS

FIELD OF INVENTION

[0001] The present disclosure relates to swimming pools, and, more particularly, to apparatus and methods for forming deck edging for swimming pools.

BACKGROUND

[0002] Swimming pools are commonly covered to prevent debris from entering the pool, to preserve chemical treatments in the water and to heat the pool in the case of a solar cover. An automatic pool cover provides convenience for a user by allowing the cover to be easily extended over the pool during periods of non-use, and retracted during periods of use. Typically, automatic pool covers utilize a track assembly built into the walls for guiding the cover and the leading edge bar of the cover as it traverses the pool.

[0003] In forming the coping and edging around the perimeter of pools it is useful to employ a mechanism in or attached to the pool walls that will provide uniformity in the coping and that can be easily installed and removed. Current forms are typically made of disposable materials, such as styrofoam, wood forms or other such materials. Such forms might be attached to the pool by two-sided tape or other temporary means, making the forms susceptible to being damaged during removal. Consequently, the new forms have to be used for each installation.

[0004] In a copending patent application, U.S. Serial No. 10/290,548, reusable deck edging forms are described, such as the deck edge forming structure 10 shown in Figures 1 and 2. As seen in Figure 1, a concrete form 12 is adapted to mate to an elongated track 14 which is embedded or encapsulated in a swimming pool wall for guiding a pool cover edge. Form 12 includes a shaping section 16 and a bottom portion 18, the latter of which extends into a channel 20 of track 14. Bottom portion 18 includes structure 22 on top of portion 18 that is adapted to mate with structure 23 on the bottom of top wall 24 of the elongated track 14.

[0005] Figure 2 shows deck edge forming structure 10 coupled together and abutting a concrete deck 30. Concrete form 12 and elongated track 14 are fully coupled with structures 22 and 23 mated, and are secured together by a spacer 32. The concrete deck 30 is formed with the edge 31 formed in the shape of the concrete form 16. After the deck has formed and hardened, concrete form 12 is removed from channel 20, so that a pool cover guide extrusion can be inserted (not shown). For purposes of this application, the terms "mate" and "mating" are substantially synonymous with "couple" or "coupling" and shall be construed broadly to mean being in contact, in an adjoining relationship, fit together, joined, or connected.

[0006] One problem encountered with the structure shown in Figures 1 and 2 is that only certain relatively conservative edge shapes could be formed. After the concrete was poured the form had to be removed from the edges. The form usually needed to be rotated somewhat to be removed, which occasionally caused the form to strike fresh concrete, risking damage to the deck edging. Thus, it was difficult to form aggressive edge shapes, such as cantilevered edges, for a pool deck. Moreover, it was sometimes desirable to remove a form before the edge was hardened, to enable the application of decorative designs to the edge. The apparatus described above might leave such an unhardened edge without much, if any, support, thereby risking the collapse of the edge, particularly if it was cantilevered or otherwise protruded substantially.

SUMMARY

[0007] In one implementation, apparatus is provided for constructing edging for a deck of a swimming pool having a retractable pool cover, wherein an elongated track for the pool cover is attached to a wall of the swimming pool. The apparatus comprises a form member shaped to form the edging, and a support member adapted to removably couple to the elongated track and the form member.

[0008] In another implementation, a method is provided for constructing edging for a deck of a swimming pool having a retractable pool cover, wherein an elongated track for the pool cover is attached to a wall of the swimming pool, comprising removably coupling a support member to the elongated track, and removably coupling a form member, shaped to form the edging, to the support member.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The above-mentioned and other features and advantages of this disclosure, and the manner of attaining them, will become more apparent and the disclosure will be better understood by reference to the following description of an implementation of the disclosure taken in conjunction with the accompanying drawings; wherein:

[0010] Figure 1 is a plan view of a prior structure used to form deck edging for a swimming pool;

[0011] Figure 2 is a perspective view of the structure shown in Figure 1 together with concrete decking for a swimming pool;

[0012] Figure 3 is a plan exploded cross-sectional view of an implementation of the apparatus for forming deck edging, according to the present disclosure;

[0013] Figure 4A is a plan view of the implementation of Figure 3 showing the elements coupled together, according to the present disclosure;

[0014] Figures 4B and 4C are plan views of other implementations showing form members shaped differently than in Figures 3 and 4A, according to the present disclosure; and

[0015] Figure 5 is a perspective view of the implementation shown in Figure 4B, according to the present disclosure;

[0016] Corresponding reference characters indicate corresponding parts throughout the several views. The exemplification set out herein illustrates one implementation of the disclosure, in one form, and such exemplification is not to be construed as limiting the scope of the disclosure in any manner.

DETAILED DESCRIPTION

[0017] Referring now to the drawings, and more particularly to Figure 3, an implementation of the two-piece deck edge forming system 40 according to the present disclosure is shown. Form member 42 is structured to form an edge 44 for the decking 46 of a swimming pool (not shown). Form member 42 includes a form portion 48 to shape edge 44 and a mating portion 50 to adapt to mate with a form mating portion 51 of a support member 52. The edge 44 as shown may be substantially straight and horizontally-spaced from a wall 56 of the swimming pool, so that the edge 44 may be "cantilevered," that is extended horizontally beyond the wall 56. An elongated track 54 is embedded between the decking 46 and a wall 56 of the swimming pool. A track mating portion 53 at one end of support member 52 is shaped to conform to a corresponding support mating portion 55 on the elongated track 54. It can be seen that, with the support member 52 in mating position with elongated track 54, vertical support is provided for the cantilevered edge 44, even with form member 42 removed.

[0018] Figure 4A shows the assembly of Figure 3 with the separate members mated together and supported to form the cantilevered edge 44, shown in Figure 3. Form 42 is coupled to support member 52, which in turn is coupled to elongated track 54. Portion 50 on form member 42 is joined with form mating portion 51 and is secured in place by a clamp 60. A splice coupling channel 49 is provided to align and couple

form 42 to other adjacent forms (not shown) using a common splice, such as a long board or channel iron (not shown).

[0019] Track mating portion 53 of support member 52 is mated with support mating portion 55 of track 54. Track 54 and support member 52 are secured together by a spacer 62 wedged into the main channel 64 of track 54. Spacer 62 may be an elongated piece, such as a piece of wood, or it may be a plurality of thin spacers placed at spaced positions along the elongated track 54.

[0020] Figure 4B shows another implementation 70 of the present disclosure involving a different shaped form member 72. Form member 72 has a curved "bull nose" shape which will cause the deck edging (not shown) to assume the same shape. Support member 82 has the same shape as support member 52 in Figures 3 and 4A and is shown mated with form member 72. As in Figure 4A, a channel 79 is provided for aligning and coupling to adjacent form members (not shown). Likewise, form member 72 includes a mating portion 80 conforming to the shape of a form mating portion 81 on support member 82. A clamp or other securing means (not shown) holds the form member 72 and the support member 82 in a mated position.

[0021] Figure 4C shows another implementation 90 of the present disclosure involving a different shaped form member 92. Form member 92 has an inclined shape which will cause the deck edging (not shown) to assume the same shape. Support member 102 has the same shape as support member 52 in Figures 3 and 4A and is shown mated with form member 92. As in Figure 4A, a channel 99 is provided for aligning and coupling to adjacent form members (not shown). Likewise, form member 102 includes a mating portion 100 conforming to the shape of a form mating shape 101. A clamp or other securing means (not shown) holds the form member 92 and the support member 102 in a mated position. Support member 102 includes a track mating surface 103 for mating with an elongated track (not shown).

[0022] Figure 5 is a perspective view of the implementation shown in Figure 4C, showing the apparatus 90 of Figure 4C coupled to an elongated track 110. Elongated track 110 has substantially the same shape as elongated track 54 in Figures 3 and 4A. The mating portion 100 of inclined form member 92 is secured to the form mating

portion 101 of support member 102 by a clamp 104. The track mating portion 103 of support member 102 is mated with the support mating portion 105 of elongated track 110. Thin spacers 112 are positioned in channel 114 of elongated track 110 to secure the mating portions 103 and 105 of support member 102 and elongated track 110 in mating position.

[0023] Although not shown in Figure 5, it is understood that elongated track 110 is secured between a deck and wall of a swimming pool, similar to that shown in Figure 3. It is further understood that the apparatus 90 is positioned for the deck edging concrete to be poured and hardened, similar to that shown in Figure 3.

[0024] The foregoing implementations have several advantages, including the following. The form members that are used to form the deck of the swimming pool may be removed before the deck edging has hardened, thereby enabling the application of various designs on the edging. The support member remains in place to support the deck edging until it is completely hardened, thereby enabling the fabrication of aggressive deck edging shapes, such as those shown in Figures 4A-C. Moreover, the used of a support member enables the removal of form members in a horizontal direction so that the hardening deck edging will not be disturbed.

[0025] Although the above implementations are representative of the present disclosure, other implementations will be apparent to those skilled in the art from a consideration of this specification and the appended claims, or from a practice of the implementations of the disclosed disclosure. It is intended that the specification and implementations therein be considered as exemplary only, with the present disclosure being defined by the claims and their equivalents.